**2.4 - Hydrocarbons**

🡪 Investigate the alkanes and alkenes. When given one structure, determine what the rest of the structures may look like, and what formula can be used to determine the number of carbons and hydrogens (i.e. CxHx).

🡪You have also been given a list of prefixes in scrambled order. Determine which prefix is associated with which number of carbons (1 to 10). Check with Mr. O. when you think you have them matched.

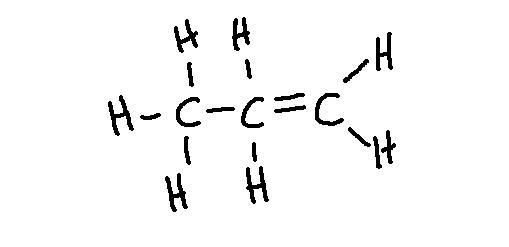
Prefixes: dec, but, hex, pent, hept, oct, meth, non, eth, prop

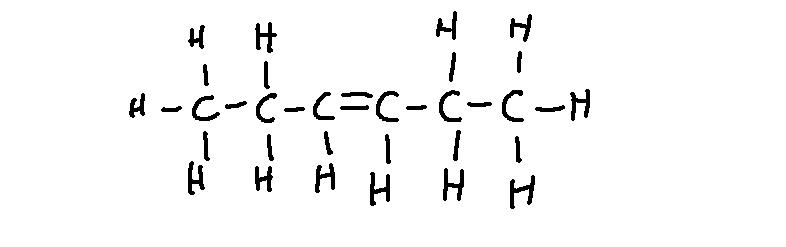
**Actual Order: Meth (1), Eth (2), Prop (3), But (4), Pent (5), Hex (6), Hept (7), Oct (8), Non (9), Dec (10)**

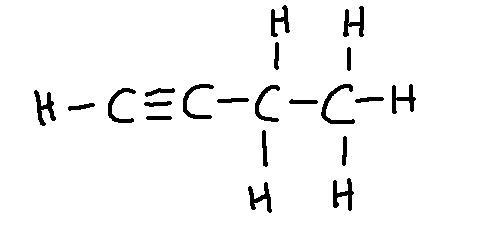
**Alkanes**

**Alkenes**

**Naming conventions for alkenes**

* When naming alkenes, we can identify the location of the double bond by using a number.
* We always the number to be as low as possible. Therefore, count from the side that the double bond is closest to. For example:
* This molecule, propene, would be identified as 1-propene or prop-1-ene when counting from the side that is closer to the double bond. In this case, 1 refers to the first carbon being involved in a double bond.
* What is the name of the following molecule?



* Answer: 3-hexene or hex-3-ene. No matter which side you count from, you arrive at the double bond on the third carbon.
* On a finishing note: what is the name of this molecule?
* Answer: 1-butyne or but-1-yne. When a hydrocarbon has a triple bond in it, it is a part of the **alkynes**. Naming is the same for these as it is for alkenes.